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## Notes on Five Japanese Limid Species (Mollusca) with Description of New Species

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Previously the writers published two reports on the Japanese limid species in 1971 and 1972. In this third report, some additional notes on five Japanese limid species including a new species are given.

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### *Acesta citrina* sp. nov.

(Figs. 1, 2)

Shell rather small for the genus, thin, elongated ovate in shape, slightly inflated. Anterior dorsal line short and oblique downwards and posterior dorsal line short, but longer than the anterior dorsal line, straight posteriorly forming a small triangular wing. Anterior margin weakly concave and long, slightly gaping. Posterior margin gently curved, ventral margin well rounded. Anterior lunule long and concave, bordering the obtuse carina from the umbo to the anterior end. Surface shiny and fresh yellow, paler to the umbo and deeper to the margin with distantly placed deeper yellowish concentric zones and with many wrinkled minute radial striae, growing the incised grooves to both anterior and posterior areas. Ligamental area between the umbo and the short straight hinge line flat and broad triangular in shape, the middle third of which is occupied by a shallow resilifer groove ending at the resilifer pit on the hinge plate. One or two hinge teeth on the anterior and posterior areas of hinge plate respectively.

Interior smooth and polished, white to the umbonal cavity and yellow to the margin. Margin minutely crenulated corresponding with the endings of the radial striae on the surface.

Height 45.0 mm, length 35.6 mm and breadth 17.2 mm (figured type specimen preserved in the National Science Museum, NSMT-Mo 51236).

Height 65.5 mm, length 49.0 mm and breadth 26.7 mm (the largest paratype

specimen collected from Sagami Bay, Honshu and deposited in KAWAMURA's collection).

*Type-locality.* Off Esuzaki, Wakayama Pref., Honshu, at the fine sandy bottom of about 120 m deep.

*Distribution.* Off Wakayama Pref. to Sagami Bay, Honshu.

*Remarks.* *Acesta (Plicacesta) smithi* (SOWERBY, 1888) is the nearest ally to this new species, but has large ovate shell exceeding 80 mm in height in fully grown specimens and sculptured with distinctly and distantly placed incised folds all over the surface. *Acesta (Acesta) goliath* (SOWERBY, 1883) is another ally and has large white ovate shell, the surface of which is rather smooth.

### *Isolima limopsis* (NOMURA et ZINBO)

(Figs. 4, 5)

*Lima (Limea) limopsis* NOMURA et ZINBO, 1934, Sci. Rept. Tohoku Univ., (2-Geol.), 18, p. 154, pl. 5, figs. 11a-b, 12 a-b.

*Limatula (Notolimea) limopsis*: OYAMA, 1943, Conch. Asiatica, 1, p. 12, pl. 1, figs. 4 a-b, 5 a-b.

Shell minute, only 4 mm in height even in fully grown specimens, roundly ovate in shape with straight dorsal line. Anterior margin rather straight, anteroventrally oblique and ventral margin rounded. Umbo small, elevated beyond the dorsal line and situated slightly posteriorly. Surface with about 16 flat topped radial ribs with a weak interstitial riblet in respective grooves, which is somewhat narrower than ribs. Hinge plate minutely crenulated and inner margin scalloped as the endings of radial ribs on the surface.

Height 3.5 mm, length 3.1 mm and breadth 1.0 mm (figured left valve collected from off Miyako Island in Ryukyu Archipelago by Mr. Yasushi NAKAYASU and preserved in the National Science Museum, NSMT-Mo 15237).

Height 3.5 mm, length 3.1 mm and breadth 1.0 mm (right valve collected from the same locality).

Height 3.4 mm, length 3.0 mm and breadth 1.0 mm (right valve collected from off Yaku Island, south of Kyushu by Mr. Nobumitsu OHSAGO and preserved in the National Science Museum, NSMT-Mo 51238).

*Distribution.* From Miyako Island to Yaku Island in Ryukyu Archipelago between Kyushu and Formosa at fine sandy and shelly bottom of 150 to 200 m deep.

*Remarks.* Though this was originally described as a Pliocene fossil at Kamikatsutsu in Kikai Island south of Kyushu, the writers have received recent specimens from two localities cited above.

### *Lima tomlini* PRASHAD

(Figs. 7, 8)

*Lima tomlini* PRASHAD, 1932, Siboga Exped., Monogr. 53 (Lamellibranchia), p. 123, pl. 3, figs. 29-31.

*Lima tomlini*: OYAMA, 1943, Conch. Asiatica, 1, p. 60, pl. 12, figs. 9-10 (not of 8 a-b).



Figs. 1-8. — 1, 2. *Acesta citrina* sp. nov. (holotype specimen).  $\times 1$ . — 3. *Divarilima iwaotakii* (HABE), from Sagami Bay, Honshu.  $\times 6$ . — 4, 5. *Isolima limopsis* (NOMURA et ZIMBO), from Miyako Island in Ryukyu Archipelago.  $\times 6$ . — 6. *Ctenoides ales* (FINLEY), from Torishima in Izu-Bonin Archipelago.  $\times 1.6$ . — 7, 8. *Lima tomlini* PRASHAD, from Tosa Bay, Shikoku.  $\times 1.5$ .

This small circular shaped species had been reported from Tosa Bay, Shikoku, and Sagami Bay, Honshu, at the fine sandy and gravelly bottom of 100–200 m deep by OYAMA. In his report he illustrated the specimen from the Sagami Bay as the Japanese specimen, but unfortunately, that specimen was different from this species, so that it was renamed in 1971 as *Lima sagamiensis* MASAHIRO, KURODA et HABE, which has thin shell with more than 50 radial ribs on the surface. Therefore, this is the first illustration of the Japanese specimens of *L. tomlini*.

Height 18.9 mm and length 18.1 mm and breadth 8.3 mm (figured specimen in

KAWAMURA's collection collected from Tosa Bay, Shikoku).

Height 17.9 mm, length 16.3 mm and breadth 8.8 mm (figured specimen collected from the same locality).

*Distribution.* Arafura Sea (204 m deep); Sulu Sea (522 m deep), off the west coast of Mindanao, Philippines (about 1,767 m deep); Tosa Bay, Shikoku, and off Wakayama Pref., Honshu (100–200 m deep).

***Divarilima iwaotakii* (HABE)**

(Fig. 3)

*Acesta iwaotakii* HABE, 1961, Jap. J. Malac. Venus, 21, p. 419 (Jap.), 429 (Eng.), figs. 3–4.

*Divarilima iwaotakii*: MASAHITO, KURODA & HABE, 1971, Sea Shells of Sagami Bay, p. 584 (Jap.), 373 (Eng.), pl. 83, fig. 16.

The specimen from Sagami Bay was inadequately illustrated in the Sea Shells of Sagami Bay. Therefore, the specimen from off Jogashima in Sagami Bay is figured herewith.

Height 6.6 mm, length 6.4 mm and breadth 1.6 mm (figured left valve preserved in the National Science Museum, NSMT–Mo 48819).

Height 7.3 mm, length 6.9 mm and breadth 1.7 mm (right valve from the same locality, NSMT–Mo 42777).

*Distribution.* From the west coast of Kyushu to Sagami Bay, Honshu, at fine sandy bottom of 20–175 m deep.

***Ctenoides ales* (FINLEY)**

(Fig. 6)

*Lima alata* HEDLEY, 1889, Rec. Austral. Mus., 3, p. 84, with text-fig. (non ROEMER, 1836).

*Lima ales* FINLEY, 1927, Trans. Proc. New Zealand Inst., 57, p. 527.

*Ctenoides ales*: OYAMA, Conch. Asiatica, 1, p. 66, pl. 13, fig. 15, pl. 14, fig. 18.

*Ctenoides ales*: HABE, 1961, Col. Illust. Shells Japan, 2, pl. 119, pl. 54, fig. 10.

The only known locality of this pretty species in Japan is Okinawa in the Ryukyu Archipelago. Fortunately, the live specimen illustrated herein was brought before the writers by Mr. Kazuo SASAO who had collected it from off Torishima in the Izu-Bonin Archipelago, about 580 km south of Tokyo. This is the second locality in Japan.

Height 31.6 mm, length 22.7 mm and breadth 12.8 mm (figured specimen preserved in the National Science Museum, NSMT–Mo 51239).

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